Amendments to the Specification

Please replace the paragraph beginning on page 2, line 17 through page 3, line 9, with the following rewritten paragraph:

However, in the FPD, two-color illumination and display are performed simultaneously, and therefore, a color filter is essential, which causes the structure of the LCDs, i.e., an image display portion to be complicated and the loss of light amount at the filter to occur. Furthermore, in the FPD, one frame is divided into a pair of subframes, and it is therefore required to drive the LCD or the like at double speed, which causes generation of control signals corresponding to respective colors to become extremely complicated. Moreover, lights are emitted from only two LEDs out of four LEDs corresponding to four colors. As a result, a long dead time occurs in the LEDs, that is, the LEDs are not made effective use of. It can be considered that the four LEDs corresponding to the four colors are simultaneously lit by using an appropriate filter. However, a difference in intensity between the G1 light and the G2 light in the divided portions may become extremely large depending on display images. Therefore, when lighting is switched between the G1 light and the G2 light, the intensity of a pixel for adjacent R light or ~~G light~~ B light may unstably fluctuate due to influence of the switching between the subframes.

Please replace the paragraph beginning on page 36, line 11 through page 37, line 2, with the following rewritten paragraph:

Even if the first illumination light IG1 from the LED 21a is made to pass through the dichroic mirror DM and the second illumination light IG2 from the LED 21b is reflected by the dichroic mirror DM, the first illumination light IG1 and the second illumination light IG2 can be combined with each other. For example, the central wavelength $\lambda G2$ of the second illumination light IG2 is set in between a pair of edge wavelengths $\lambda E1$ and $\lambda E2$, and a

central ~~wavelength λG1~~ wavelength λG1' of a first illumination ~~light IG1~~ light IG1' is set in a longer wavelength side than the second edge wavelength λE2. At this time, the first illumination light IG1' from the LED 21a passes through the dichroic mirror DM at a high rate. The polarization converter PC1 is provided so as to selectively pass only an s-polarized light of the incident light. The second illumination light IG2 from the LED 21b is converted to the s-polarized light through the polarization converter PC1 and is reflected by the dichroic mirror DM by almost 100 %. As a result, it is possible to reduce the loss of both the illumination lights IG1 and IG2 due to the wave combination of the illumination lights IG1 and IG2 from the LEDs 21a and 21b.

Please replace the paragraph beginning on page 39, line 14 through page 40, line 2, with the following rewritten paragraph:

The ~~controller 50~~ controller 350 outputs control signals to the element drive unit 338 to form a two-dimensional distribution of polarization characteristics corresponding to each luminance of projection images of the colors over the transmission-type liquid-crystal light valve 331. More specifically, the transmission-type liquid-crystal light valve 331 performs a display corresponding to the luminance of a projection image of the G1 light at the subframe in the first half of the two portions into which the display period of the G frame portion is divided, and performs a display corresponding to the luminance of a projection image of the G2 light at the subframe in the second half thereof. Furthermore, the transmission-type liquid-crystal light valve 331 performs displays corresponding to projection images of the B light and the R light, respectively, over the display period of the B frame portion and the R frame portion.

Please replace the paragraph beginning on page 43, line 5 through line 8, with the following rewritten paragraph:

The combined lights of RGB emitted from the rod lens 428b evenly illuminate the DMD 430 through a lens 429a and a ~~mirror 529b~~ mirror 429b. In this case, by adjusting the position and the focal length of the lens 429a, the DMD 430 can be evenly illuminated.

Please replace the paragraph beginning on page 45, line 23 through page 46, line 6, with the following rewritten paragraph:

Fig. 11 is a block diagram for conceptually explaining a structure of a projector 510 according to a sixth embodiment. The same reference signs are assigned to those corresponding to the portions in the first embodiment, and explanation thereof is omitted. In the projector 510, a G-light lighting ~~device 21~~ device 521 of a lighting device 520 includes a polarization converter PC2. The polarization converter PC2 is the polarization converter that converts the illumination light from the LED 21b, which is the second light source, to a predetermined polarized light.

Please replace the paragraph beginning on page 46, line 21 through page 47, line 21, with the following rewritten paragraph:

The second illumination light IG2 emitted from the LED 21b in its front direction enters the λ/4 waveplate 552 through one end P3 thereof. The second illumination light IG2 emitted from the LED 21b in its side direction is reflected by the concave reflecting mirror 21d, which is the reflecting unit, to also enter the end P3 of the λ/4 ~~waveplate 52~~ waveplate 552. The light incident from the end P3 then passes through the reflection-type polarizing plate 553. During passage of the second illumination light IG2 through the λ/4 waveplate

552, a linearly polarized light component of the second illumination light IG2 is converted to a circularly polarized light. During passage of the second illumination light IG2 through the reflection-type polarizing plate 553, only the p-polarized light of the second illumination light IG2 selectively passes through it. The second illumination light IG2 reflected by the reflection-type polarizing plate 553 is mainly the s-polarized light, but by passing through the $\lambda/4$ waveplate 552, the second illumination light IG2 is converted to the circularly polarized light to be returned to the concave reflecting mirror 21d. The second illumination light IG2 reflected by the concave reflecting mirror 21d enters again the $\lambda/4$ waveplate 552 and the reflection-type polarizing plate 553. Such a re-incident light is converted from the circularly polarized light to the p-polarized light by the $\lambda/4$ waveplate 552 to efficiently pass through the reflection-type polarizing plate 553. As is clear from the explanation, the second illumination light IG2 incident on the dichroic mirror DM from the reflection-type polarizing plate 553 consists of only the p-polarized light to which the light from the LED 21b has been converted with high efficiency.

Please replace the paragraph beginning on page 47, line 22 through page 48, line 14, with the following rewritten paragraph:

The dichroic mirror DM reflects the first illumination light IG1 by almost 100 % and passes the second illumination ~~light IG1~~ light IG2, which is the p-polarized light, with high efficiency. Therefore, it is possible to reduce the loss of both the illumination lights IG1 and IG2 due to the wave combination of the illumination lights IG1 and IG2 from the LED 21a and the LED 21b. At this time, the wavelengths of the illumination lights IG1 and IG2 are close to each other, which makes it possible to provide the G-light lighting device 521 with high color purity and high intensity. Since both the LEDs 21a and 21b are arranged on the respective optical axes, the characteristics of the illumination lights from the LEDs 21a and

21b are made uniform to allow the illumination lights to enter the G-light transmission-type liquid-crystal light valve 31 (see Fig. 11). Therefore, it is possible to increase the use efficiency of the illumination lights by the G-light transmission-type liquid-crystal light valve 31. The characteristics of the dichroic mirror DM according to the sixth embodiment are the same as those of the dichroic mirror DM according to the second embodiment as explained with reference to Fig. 4.

Please replace the paragraph beginning on page 47, line 22 through page 48, line 14, with the following rewritten paragraph:

As explained above, based on the structure such that the first illumination light IG1 is reflected by the dichroic mirror DM and the second illumination light IG2 passes through the dichroic mirror DM, the first and the second illumination lights IG1 and IG2 are combined with each other. Furthermore, in the similar manner to the second embodiment as explained with reference to Fig. 4 the first illumination light IG1' from the LED 21a may be made to pass through the dichroic DM [r] the central wavelength λG1' of the first illumination light IG1' from the LED 21a may be set in a shorter wavelength side than the second edge wavelength λE2 to pass the first illumination light IG1' through the dichroic mirror DM, and the second illumination light IG2 from the LED 21b may be reflected by the dichroic mirror DM.

Please replace the paragraph beginning on page 52, line 8 through page 53, line 4, with the following rewritten paragraph:

The G-light lighting device 721 as shown in Fig. 15A allows an illumination light with its central wavelength λ1 to be reflected by a dichroic mirror DM2. This illumination light is emitted from a light source ~~device 261a~~ device 761a which includes the LED and the

concave reflecting mirror. The G-light lighting device 721 also allows an illumination light with its central wavelength $\lambda 2$ to be reflected by a dichroic mirror DM1 and pass the illumination light through the dichroic mirror DM2. This illumination light is emitted from a light source device 761b which, although it has the similar structure, further includes the polarization converting element that converts the light to a p-polarized light. Furthermore, the G-light lighting device 721 allows an illumination light with its central wavelength $\lambda 3$ to pass through the dichroic mirror DM1 and the dichroic mirror DM2. This illumination light is emitted from a light source device 761c which further includes the polarization converting element that converts the light to a p-polarized light. As explained above, the illumination light emitted from the dichroic mirror DM2 has high intensity as a result of combining the illumination lights from the light source devices 761a, 761b, and 761c. It is noted that the pair of dichroic mirrors DM1 and DM2 have reflectance and transmittance characteristics, explained below, which allows the illumination lights with their central wavelengths $\lambda 1$, $\lambda 2$, and $\lambda 3$ to be combined with one another.

Please replace the paragraph beginning on page 55, line 17 through page 56, line 11, with the following rewritten paragraph:

In the lighting ~~device 420~~ device 920, the G-light light source device 921 includes the LED 21a that is the first light source and the LED 21b that is the second light source, which emit a pair of illumination lights whose central wavelengths are approximate to each other, the concave reflecting mirrors 21d that collect the illumination lights emitted from the LEDs 21a and 21b, the dichroic mirror DM as the wave combining unit that combines the illumination lights from both the LEDs 21a and 21b, and the polarization converter PC2 as the polarization converter that converts the illumination light from the ~~LED 21a~~ LED 21b to a

predetermined polarized light. The first illumination light IG1 from the LED 21a is entirely recovered by the concave reflecting mirror 21d to enter the dichroic mirror DM, and is reflected thereby to enter the cross dichroic ~~prism 427~~ prism 927. On the other hand, the second illumination light IG2 from the second light source 21b is entirely recovered by the concave reflecting mirror 21d to enter the polarization ~~converter PC~~ converter PC2. The second illumination light IG2 having been converted to almost p-polarized light by the polarization ~~converter PC~~ converter PC2 enters the dichroic mirror DM and passes through it, and the first illumination light IG1 and the second illumination light IG2 enter the cross dichroic ~~prism 427~~ prism 927 in a state where they are combined.

Please replace the paragraph beginning on page 56, line 12 through page 56, line 15, with the following rewritten paragraph:

The B-light light source device 923 includes the LED 23a that is the third light source and the concave reflecting mirror 23d. The third illumination light IB from the LED 23a is entirely recovered by the concave reflecting mirror 23d to enter the cross dichroic ~~prism 427~~ prism 927.

Please replace the paragraph beginning on page 56, line 16 through page 56, line 20, with the following rewritten paragraph:

The R-light light source device 925 includes the LED 25a that is the fourth light source and the concave reflecting mirror 25d. The fourth illumination light IR from the fourth light source 25a is entirely recovered by the concave reflecting mirror 25d to enter the cross dichroic ~~prism 427~~ prism 927.

Please replace the paragraph beginning on page 63, line 7 through page 63, line 23, with the following rewritten paragraph:

The second illumination light IGb from the LED 1001Gb is a non-polarized light, and is converted to substantially collimated light in a collimator lens 1002Gb as explained above. The second illumination light IGb having been converted to collimated light passes through a $\lambda/4$ waveplate 1102 to enter a reflection-type polarizer 1101. The $\lambda/4$ waveplate 1102 has a function of converting a polarized state of an incident light to a state as explained later. The reflection-type polarizer 1101 can extract a polarized light component in the particular direction of vibration, for example, a p-polarized light component. As the reflection-type polarizer 1101, the grid-type polarizer can be used in the same manner as the second embodiment. The reflection-type polarizer 1101 passes the p-polarized light component, of the second illumination light IGb that is the non-polarized light, to output it, and reflects the s-polarized light component. The s-polarized light component reflected by the reflection-type polarizer 1101 passes through the $\lambda/4$~~ waveplate 202~~ waveplate 1102 again to be converted to a circularly polarized light.

Please replace the paragraph beginning on page 67, line 4 through page 67, line 12, with the following rewritten paragraph:

The second dichroic mirror 1004 combines the combined lights IGab output from the first dichroic mirror 1003 with the third illumination light IGc to output the lights combined. The~~ LED 101Gc~~ LED 1001Gc that is the third light source and the second dichroic mirror 1004 are arranged so that an angle $\theta 2$ of the third illumination light IGc incident on the second dichroic mirror 1004 is the same as an angle $\theta 2$ of the combined lights IGab, between the first illumination light IGa and the second illumination light IGb, incident on the second

dichroic mirror 1004. The angle $\theta 2$ of incidence is less than 45°.

Please replace the paragraph beginning on page 72, line 8 through page 72, line 14, with the following rewritten paragraph:

Fig. 26 depicts a schematic structure of a projector 1400 according to a fifteenth embodiment of the present invention. The projector 1400 is a modification of the ~~projector 1430~~ projector 1300 according to the fourteenth embodiment, and the DMD is used instead of the transmission-type liquid-crystal light valve. The same reference signs are assigned to those corresponding to the portions in the embodiments, and explanation thereof is omitted.

Please replace the paragraph beginning on page 72, line 15 through page 72, line 19, with the following rewritten paragraph:

The R light from the LED 1001R is converted to substantially collimated light in the collimator lens 1002R to enter the cross dichroic prism 1332. ~~The G light from the LED 1001G is converted to substantially collimated light in the collimator lens 1002G to enter the cross dichroic prism 1332~~ The B light from the LED 1001B is converted to substantially collimated light in the collimator lens 1002B to enter the cross dichroic prism 1332.